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BOOK REVIEWS

Planning and Urban Growth: An Anglo-American Comparison

By Marion Clawson and Peter Hall. Published for Resources for the Future, Inc., by the Johns Hopkins Press, Baltimore, 21218. 1973. 287 pages. \$12.50.

To the observer who has contrasted the manicured British countryside with the sometimes garish urban sprawl of the United States and suspected the contrast was evidence of some superiority in the British system, this book may be somewhat of a letdown. The authors cite no peculiar British successes that might be transferred to America.

Why review a book on urban planning in an agricultural research journal? In the competition for urban growth, some agricultural land continually succumbs. In the struggle to channel urban growth and preserve rural land and rural values, land use controls are advocated and attempted.

Planning is essentially a political process. In both countries the political systems have tended to protect the values that are most highly regarded. In America these have been populist values—the rights of private property and democratic involvement. In Britain they have tended to be elitist: for the few, the preservation of agricultural land and rural values; for the masses, the provision of well-regulated locations for housing and industry with a minimum of travel time to work. The authors concluded that neither country got precisely what it wanted.

The American system of land use regulation has been largely zoning, with flexible market pricing and relatively easy rezoning. The more rigid British system, on the other hand, seems to embody the philosophy that the ideal urban structure is known and can be produced through planning. This philosophy is evident in the 28 "New Towns" that were deliberately created to house and provide work for some 2 million Britons after World War II.

The authors show that in area and population, England and Wales are fairly comparable with the Northeastern urban complex of the United States:

	England and Wales	Northeastern urban complex
Urbanized area (million acres)	3.3	3.5
Population (million)	25.7	28.5
Density (persons per square mile)	4,942	5,290

They point out, however, that the British have been more economical of land for residential uses. Densities of 27 persons per acre in megalopolis England compare with about 10 persons per acre in the residential land of the Northeastern urban complex. They ascribe this to differences in land use planning and controls in the two countries as well as to historical influences.

After drawing other statistical parallels between the two countries, the authors examine geographic and institutional reasons for observed differences in land use and population density. In both countries an artificial scarcity has increased the cost of developable land, perhaps unreasonably. Tighter controls in Britain have raised prices of developable land even more effectively than the somewhat haphazard zoning process of the United States. Of interest to the theorist is the British attempt to nationalize development rights on all land, and to capture all the price increase resulting from land use changes. The attempt apparently worked fairly well in the New Town developments but eventually broke down on land where development rights were privately held and negotiated. In Britain, as in the United States, development and planning produce both gainers and losers. "Perhaps the chief lesson of this book is that in the past this fact has not been frankly faced." The authors conclude, "In the future, it must."

In some respects this book resembles a well-cooked stew—tasty and nourishing, but difficult to sort out if one wants to identify the initial ingredients. The stew results from a boiling down and combination of two massive studies: Clawson's impressive *Suburban Land Conversion in the United States*, and *The Containment of Urban England*, in which Peter Hall collaborated with other researchers under the auspices of a nonprofit British research institute called Political and Economic Planning (PEP).

The authors fault planners on both sides of the Atlantic for viewing planning more as an inventory or projection than as a process. In both countries they note the inevitable results of fragmentation of authority among various planning agencies. In particular, they cite the inconsistency that results from urban responsibility for planning for people, while suburban or rural areas have control over the land. They see "only one way to end such a situation: to bring about a fundamental reform of local government on the basis of the metropolitan or city region principle, or alternatively to transfer planning and land use control powers to higher-level regional units of government."

The authors cite the criticism that "economic analysis may be positively perverse in appearing to give clear-cut quantified answers to questions where the basic variables are very often open to considerable doubt," and answer that economic analysis "provides an orderly framework for logical and disciplined discussion." The framework offered by this book is a worthwhile attempt to open up the discussion of institutional inadequacies on both sides of the Atlantic. As usual, Clawson has developed the best case possible out of largely inadequate and non-comparable data on the subject.

"One cannot escape the conclusion that the land use planning process is antiquated and technically inefficient. . . one may be unable to prescribe the . . . specifications for a better system, and yet be convinced that the existing system is badly designed." From their considerable objectivity and perception, the authors have presented a general set of conclusions regarding what are clearly some of the key issues of the moment relating to quality of life. The book clearly requires a more specific sequel.

Howard A. Osborn

Economics and the Public Purpose

By John Kenneth Galbraith. Houghton Mifflin Company, 2 Park Street, Boston, Mass. 02107. 1973. 334 pages. \$10.

Once again the eminent non-Marxist economist has come out with a critique of our economy and a proposal to rectify the apparent inequities of the capitalist structure. One may look at his thesis as perhaps an emulation of the Keynes performance of patching up capitalism by socializing part of the economy.

Galbraith contends that the Nation is divided into two economic sectors. The powerful one is the "planning system," which is composed of the dominant large

companies whose "technostructure" controls the important power points of government. They receive large incomes which they share with their unionized workers. This phenomenon, coupled with the fact that the planning system controls aggregate demand and most of the vital resources of the Nation, is evidently an important cause of inflation. Galbraith calls this "systemic." The other sector is the "market system," composed of small firms and individual entrepreneurs. This group has little impact in influencing prices and Government policy. Agriculture is in this sector and, despite subsidies and Federal farm agencies, can do little to make the economy more effectively resolve the confused agricultural problem.

Galbraith's purpose is to achieve greater equalization of power between the planning and market systems. To achieve this, he suggests adopting a more abrupt progressive income taxation, increasing and extending minimum wages, and unionizing the smaller businesses, including the agricultural sector.

As is fairly obvious to anyone who has read Galbraith in the past, he considers that the planning system in its present structure causes hardship for many people, and is particularly responsible for the endogenous attributes of inflation and recessions—or what Karl Marx called the "inner contradictions" of the capitalist society.

To be sure, there could be arguments to support his call for changes. There are many deterrents to allocative efficiency in our competitive economy. An important one, in which Galbraith is particularly interested, is income inequality and the unresponsiveness of the price system to social wants.

No doubt introducing changes to eradicate social ills is a noble undertaking, but this reviewer got the impression that Galbraith thinks it can be accomplished more easily than one should rationally believe. This book is well written and informative, but it does not achieve the purpose that the author attempted, that is, "to put it all together, to give the whole system." Let us hope his next book does.

Jack Ben-Rubin

Operations Research Methods for Agricultural Decisions

By R. C. Agrawal and Earl O. Heady. Iowa State University Press, Ames, 50010. 1972. 303 pages. \$10.95.

The field of operations research is growing fast. So is the number of textbooks on the subject. The book by Agrawal and Heady deals with selected tools and theories of operations research. Although the authors

emphasize the discrete and deterministic nature of operations research, their selection of topics is not restricted by these criteria. The 13 chapters in the book can be grouped into five sections:

1. General survey (chapters 1, 2, and 3)
2. Programming (chapters 3, 4, 5, and 12)
3. Game theory (chapters 6 and 7)
4. Stochastic processes (chapters 8, 9, and 10)
5. Miscellaneous topics (chapters 11 and 13).

The first two chapters give a general survey of the subject with various applications and the steps involved in building a model. The survey is followed by three chapters on linear programming and extensions. The discussion of linear programming includes an excellent discussion of the mathematics of the simplex method. The extensions of linear programming include variable price and resource programming and integer, dynamic, nonlinear, and quadratic programming. Chapter 13 discusses the case where the objective function is a ratio of two linear functions (linear fractional functional programming).

The chapter on game theory includes discussion of various choice criteria. Several illustrations are given. The relationship between game theory and linear programming through a skew-symmetric matrix is shown.

Discussion of stochastic processes includes Markov chains, inventory models, and theory of queues. The relationship of Markov chain processes with dynamic programming is shown. Two inventory models are discussed, one with no shortages admissible and another with shortages admissible. The waiting-line problems include single-channel and multiple-channel queues.

The remaining two chapters cover network analysis and simulation. The first includes a discussion of PERT. The final chapter touches on the general principles of simulation.

An appendix includes a review of elements of set theory, calculus, and matrix algebra.

This is an impressive catalog of topics. However, in the process of attaining breadth of coverage, the authors have overlooked some places where the presentation could have been improved. In setting up a linear programming problem, they do not point out the difference between "function" and "functional." The problem of degeneracy is not discussed. Some of the examples on game theory are discussed from the point of view of one player only, although the value of the game is not the same for the other player. The discussion of dynamic programming is marred by several misprints. It is hoped that the authors will improve the discussion in a subsequent edition.

This is a welcome addition to the literature on quantitative economics.

Jitendar Mann

We Don't Know How

By William and Elizabeth Paddock. The Iowa State University Press, Ames, 50010. 331 pages. 1973. \$4.95 (paper).

The Paddocks make it clear that they have joined the ranks of those disenchanted with efforts of the rich developed world to promote the development of the third world.

Their field of investigation is agriculture and the region selected is Central America and Mexico. They are well qualified for the undertaking as they have been professionals in the development field and have had experiences in Latin America over a period of 30 years.

The Paddocks' method was to solicit recommendations from top levels of development agencies as to the most successful projects and then to make first-hand observations of these as well as of projects with which they had been familiar at earlier dates. Their observations are that current progress reports are like the fisherman's tale—they begin with exaggerations and improve with each retelling until they ultimately bear little or no resemblance to reality. Project justifications are coverups for decisions made on the basis of geopolitical expediency. Projects serve to provide presence and visibility for the agencies and individuals involved and are abandoned as soon as their political potential and personal career advancement value have been exploited. These allegations apply to international agencies and foundations as well as to bilateral programs. The only institutions that receive commendation from the Paddocks are private industries—two food processing firms. Where development has been successful it was because conditions were favorable—for example, Monterrey, Mexico, because of its proximity to the United States, and San Pedro Sula, Honduras, because of its proximity to the plantations of one of the firms.

The Paddocks recommend that we practice development strategies on our own underdeveloped areas, the Appalachians, the Indian reservations, and the ghettos until we learn more successful techniques.

Jane M. Porter

Food Aid and International Agricultural Trade

By Robert L. Bard. D. C. Heath and Company, 125 Spring Street, Lexington, Mass. 02173. 321 pages. 1972. \$12.50.

As a reference source for the many food and commodity trade agreements and practices now in effect, Bard's book is excellent. It is broad in scope and contains detailed legal citations relative to programs and administrative authorities.

Bard deals with the economic basis and corollary effects of food aid programs for both exporting and recipient nations. The book is based on studies and data that reflect for the most part periods of ample supplies or surpluses in major producing nations.

It is hoped that Bard will carry his interest and analysis forward. His evaluation of the impacts of the 1972 and 1973 demand and supply situations, world-wide and by major exporting and importing nations, would be useful. A particular case in point would be the present World Food Security program proposed by A. H. Borema, Director General of the United Nations FAO.

Although Bard has concentrated on U.S. and FAO-related programs in this volume, the entry onto world markets the past 2 years by many nations could give added dimension to his scholarly review.

In his preface and summary chapter, Bard sets forth the parameters of his book, pointing out that "... This book is concerned with those aspects of the economic and financial interrelationships between food aid and international agricultural law that may be affected through control methods fitting a broad definition of law."

In part of his summation, Bard concludes "... it is interesting to speculate about the overall configuration of the control mechanisms applied to food aid transactions as an example of a particular variety of the use of law and law-related instruments to resolve intricate economic problems with strong international implications."

Many an economist and many a program administrator may take issue with Bard's analysis, falling back to "the practicality and immediacy" of carrying out a program in a given way, or of not having one. Nevertheless, the criteria and conclusions which the author sets forth merit consideration by any who work in this volatile field.

Whether exception is taken or not, Bard has contributed materially to knowledge of the facts, problems, and possibilities of this complex and vastly important area of national and international agricultural and commodity use.

This is a book that should open a few doors, not just

for economists and attorneys, but for those who establish policy and administer programs both within governments and in private trade.

James S. Ward

Brazil's Agricultural Sector: Economic Behavior, Problems, and Possibilities

By Ruy Miller Paiva, Salomao Schattan, and Claus F. Trench De Freitas. Ministry of Planning, Sao Paulo, Brazil, 1973. 428 pages.

Brazilian agriculture has undergone remarkable changes since World War II. *Brazil's Agricultural Sector* is a handy up-to-date synthesis of the record to 1972. Although comprehensive (428 pp.), it is handy, concise, and readable. It is a handbook of Brazilian agricultural information prepared for the International Conference of Agricultural Economists that met in Sao Paulo in August 1973. The authors have done an admirable job of simplifying for the lay reader the numerous statistical tables, charts, and trend lines.

Paiva, author of the first half of the book, makes a factual presentation of the postwar performance of the sector that summarizes the trends in production, prices, exports, modern inputs to increase productivity, farm income distribution, and farm wages. He follows this with a comprehensive statement of Government policies that have been designed to help agriculture. This section is practically a catalog of the enlightened policies that economists, AID officials, and World Bank technicians recommended during the 1960's--scientific research, technical assistance, financial assistance, marketing programs, and minimum price support programs. Brazilian ingenuity in tailoring these policies to fit local needs is presented in the cases of coffee, sugarcane, wheat, and beef cattle.

The last half of the book, by De Freitas, is an economic geography that surveys Brazil's natural resources, geology, climate, soils, and vegetation. It incorporates the basic information from a large number of technical studies prepared since 1960. Readers who have read about the Amazon region may wish to diversify their knowledge of a country the size of the continental United States. Of particular interest are discussions of the cerrado, or savannah bushland, that covers 25 percent of the country, the caatinga, or semiarid scrub country of the northeast, and the pantanal, a low flooded area along the Paraguai river in the southwest, a future rice bowl.

The conclusion of the book is an economic geography of the five major geographical regions which focuses on

the specific characteristics of agriculture in each. This survey contains an enormous amount of detail on the development of specific crops and livestock.

Development technology. The most stimulating idea in this handbook is Paiva's idea that *prices* play the crucial role in the diffusion of modern technology. The gist of his argument is this: Brazilian agriculture is dualistic in its technology; traditional subsistence technology exists side by side with modern technology. This modern technology is of paramount importance if Brazil is to meet sector goals of her two conflicting sets of national objectives: (1) to supply at cheap prices an abundance of food and raw material for domestic needs and export markets, and (2) to raise farm income wages and employment for the farm population. Nothing but increased efficiency through the use of modern inputs can satisfy these conflicting objectives. Farmers must adopt techniques that make use of capital investments, technical knowledge, credit facilities, and managerial skill. Government policies as outlined in the book have improved infrastructure and made the essential inputs available to farmers who are willing to use them. But Government cooperation, abundance of credit, and the willingness of farmers are still not enough. The decisive factor in the diffusion of modern technology is *prices*. Entrepreneurs will not make investments, use credit, or apply research until prices reach a satisfactory level, and have the prospect of staying there. The nonagricultural sector provides the mechanism for prices in the markets.

If Paiva had developed this idea to show that the commercialized modernized segment of agriculture had been a basic factor in the Brazilian "economic miracle" he would have brought home a winner. It is ironic that he published this idea in 1973, the very year in which Brazilian farm prices reached remarkable levels in domestic and export markets. Prices for cotton, coffee, sugar, soybeans, castorbeans, beans, and oranges were high enough to provide the motive force to satisfy Paiva's hypothesis. If it is correct, the diffusion of modern technology in 1973 must have been proceeding at a remarkable rate. From his ringside seat in Sao Paulo, he could have made a classic demonstration of his process on soybeans, cotton, and castorbeans that would have exceeded in interest the famous *Ninety-nine Fazendas*, which he and W.H. Nicholls published in 1963. Success stories in agricultural development are news and this one cries out to be told.

Traditional technology. After Paiva establishes the importance of "modernized" technology, he drops it. He passes up a chance to show the key role of agricultural exports in Brazil's development, which is running at an annual rise of 10 percent in GNP (p. 48). Deadpan, he slides through a 400-percent rise in these exports

between 1953-56 and 1969-71 in two meager sentences. In his evaluation of the success of Brazilian agriculture, he drops his distinction between "modernized" and traditional technology—and slips back into the rut of traditional agriculture. Undoubtedly this is the prevailing technology for the farmers outside the commercial process, but it is not news. In his evaluation of the sector since the war, he concedes that it provided a surplus of exports and food well in excess of the needs of a rapidly growing population. He implies, however, that the sector has failed, or at least has problems, in land distribution, distribution of farm income, and farm wages. He attributes these problems to low productivity and (on p. 99) to the "not very rapid development of the non agricultural sector." This is incredible when we note that the real value of the Brazilian GNP doubled between 1963 and 1973, from \$23 billion to over \$50 billion. His picture of a lame performance applies only to the traditional technology.

How unfair it is to demand so much from a modest handbook prepared for a conference! Actually the book is loaded with informational riches. We could use 500 copies to give to people interested in the basic facts of Brazilian agriculture. We are so grateful for the English edition that we dare not cavil with typographical errors. It is the most recent book on Brazil's farm sector—the other two are Schuh's *Agricultural Development of Brazil* and Hernmann's *Changes in Agricultural Production in Brazil, 1947-65*.

The Brazilian Embassy believes that this book can be obtained from the Ministry of Planning, which published it for the Sao Paulo conference. The address is:

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Samuel O. Ruff

*Subsistence to Commercial Farming in Present Day
Buganda: An Economic and Anthropological Survey*

Edited by Audrey I. Richards, Ford Starrock, and Jean M. Fortt.
African Studies Series 8. Cambridge University Press, 32 E. 57th
Street, New York 10022. 1973. 336 pages. \$22.50.

How to break through the level of traditional subsistence agriculture and create a class of market-oriented farmers is a problem in many developing countries. This book is based on a survey of a group of farmers in southern Uganda who have successfully made the break with tradition. The survey, under the auspices of the Centre of African Studies of Cambridge University, attempted to answer such questions as: Under